

## **SECTION 03361 – CONCRETE STAMPING**

### **PART 1 – GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This section includes:
  - 1. Textured concrete slabs.
- B. RELATED SECTIONS
  - 1. Division 2 Section "Portland Cement Concrete Paving."
  - 2. Division 3 Section "Cast-In-Place Concrete."
  - 3. Division 3 Section "Concrete Color Additive."

#### **1.3 SUBMITTALS**

- A. Product Data: Manufacturer's printed product literature, including catalog date, detail sheets, and printed instructions.
- B. Shop Drawings: Layout plan showing coordination with other work.

#### **1.4 QUALITY ASSURANCE**

- A. Mock-Up: Provide a 4 foot by 4 foot (1200 mm x 1200 mm) mock-up to demonstrate methods of obtaining consistent visual appearance.

1. Construct at least one month before the start of actual work, using materials and methods to be used in actual work.
2. Locate mock-up on site.
3. Retain samples of materials used in mock-up for comparison with materials used in remaining work.
4. Accepted mock-up constitutes visual standard for work.
5. Remove mock-up when no longer required for comparison with finished work.

## 1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Apply color stain when ambient temperature is between 50 and 100 degrees F (10 and 40 degrees C). Consult manufacturer if conditions differ.

## PART 2 - MATERIALS

### 2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
1. Symons Corporation.
  2. Bomanite Corporation.
- B. Requests for substitutions will be considered in accordance with provisions of Division 1.
- C. Provide all concrete stamping materials from a single manufacturer.

## 2.2 CONCRETE STAMPING SYSTEM

- A. Simulated Masonry Molds: Reusable, made of high-strength urethane, easily attachable to forms. Molds shall not compress more than ¼ inch (6 mm) when concrete is poured at a rate of 10 vertical feet (3000 mm) per hour. Molds shall be removable without causing deterioration of surface or underlying concrete.
- B. Ensure uniform concrete mix as follows:
  - 1. Design: 4000 psi (28 MPa) compressive strength, low slump.
  - 2. Air Entrainment: 3 percent maximum.
  - 3. Do not use excessive super-plasticizers.
  - 4. Do not use calcium chloride or non-chloride accelerators.

## 2.3 MATERIALS

- A. Decorative Sealer: Acrylic.
- B. Color Hardener: Manufacturer's standard.
- C. Cure and Seal Compound: Manufacturer's standard.
- D. Color Release: Manufacturer's standard.
- E. Pattern: 6 inch by 6 inch (150 mm by 150 mm) tile.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine the areas and conditions under which the work is to be performed. Verify that layout dimensions are correct and substrate is in proper condition for installation.

- B. Do not proceed with the work until unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Plan pattern layout, coordinate slab dimensions and construction joint locations with stamping pattern dimensions where necessary.
- B. Broadcast color hardener evenly over fresh screeded and floated concrete surface. Work color hardener into concrete surface, integrating color with the concrete.
- C. Broadcast additional material to intensify the final color appearance, if necessary, working material into the surface.
- D. Monitor concrete set time carefully. When concrete is set adequately to support worker's weight, broadcast color release evenly over the slab surface at the rate of 3 pounds per 100 square feet (1.5 kg per 10 square meter).
- E. Begin stamping operation using stamping tool kit. Work quickly and continuously across entire pour.
  - 1. Place each tool on slab surface, aligned with each other and slab edges as pattern requires.
  - 2. Step on back of stamping tool to create full depth impression in concrete.
  - 3. Use special half tools and texture mats at slab edges, walls, and corners.
  - 4. Broom texture surface where required.
- F. Rinse residual release from surface once slab has set.
- G. Apply cure and seal compound following manufacturer's directions.

### 3.3 ADJUSTING AND CLEANING

- A. Replace damaged areas prior to Substantial Completion.
- B. Remove debris and scrap from the site.
- C. Leave adjacent paved areas broom clean.

END OF SECTION 03361